

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE,	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,507	07/23/2003	Keith Baker	T01073-0006-US	7404
21028 7590 08/10/2007 GOWLING, LAFLEUR & HENDERSON LLP			EXAMINER	
160 ELGIN STREET SUITE 2600 OTTAWA, ON K1P 1C3 CANADA			SORRELL, ERON J	
			ART UNIT	PAPER NUMBER
			2182	
			MAIL DATE	DELIVERY MODE
			08/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)			
	10/624,507	BAKER ET AL.			
Office Action Summary	Examiner	Art Unit			
	Eron J. Sorrell	2182			
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).					
Status					
1) Responsive to communication(s) filed on 28 May 2007.					
2a) This action is FINAL . 2b) ⊠ This	This action is FINAL . 2b)⊠ This action is non-final.				
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims					
4)⊠ Claim(s) <u>1-3 and 6-20</u> is/are pending in the application.					
4a) Of the above claim(s) is/are withdrawn from consideration.					
5) Claim(s) is/are allowed.					
6)⊠ Claim(s) <u>1-3 and 6-20</u> is/are rejected.					
7) Claim(s) is/are objected to.					
8) Claim(s) are subject to restriction and/or election requirement.					
Application Papers					
9)☐ The specification is objected to by the Examiner.					
10)⊠ The drawing(s) filed on <u>23 July 2003</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.					
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).					
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).					
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.					
Priority under 35 U.S.C. § 119					
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of:					
1. Certified copies of the priority documents have been received.					
2. Certified copies of the priority documents have been received in Application No					
3. Copies of the certified copies of the priority documents have been received in this National Stage					
application from the International Bureau (PCT Rule 17.2(a)).					
* See the attached detailed Office action for a list of the certified copies not received.					
Attachment(s)					
1) Notice of References Cited (PTO-892)	4) Interview Summary				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)	Paper No(s)/Mail D 5) Notice of Informal F				
Paper No(s)/Mail Date	6) Other:				

DETAILED ACTION

Examiner's Remarks

1. Applicant's amendment to claim 1 is sufficient to overcome the $112-2^{nd}$ paragraph rejection set forth in the previous office action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 17-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claims 17-20 recite the limitation of the power controller disabling power to the switches by periodically detecting a protocol identifier. This functionality does not appear to be supported by the specification. At paragraph 26 of the instant specification, it appears that the power controller disables power when a protocol

Application/Control Number: 10/624,507 Page 3

Art Unit: 2182

identifier is not detected, and not disabling the power by periodically detecting a protocol identifier (emphasis added).

4. For the purpose of compact prosecution, the Examiner will interpret the claims as "the power controller disables power when a protocol identifier is not detected."

Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claims 1,2,6-11, and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pascolini (US Pub. No. 2002/0069300) in view of Lee (U.S. Patent No. 7,069,346) and further in view of Pickert et al. (U.S. Patent No. 4,794,525 hereinafter "Pickert").
- 7. Referring to apparatus claim 1, Pascolini teaches a data terminal equipment (DTE) comprising:

Application/Control Number: 10/624,507

Art Unit: 2182

a port (see paragraph 14 on page 1);

at least one signal line connected to the port to establish a communication path (see item 215 in figure 2);

a set of transceivers, each transceiver being associated with a respective circuit in the DTE to establish communication along the communication path in accordance with a selected protocol (see items labeled 225a-d in figure 2);

a switch in each of at least one signal line, each of the switches having a set of connections with each of the transceivers (see items labeled 230n and paragraph 28 on page 2); and

and interface controller providing a control signal to condition the switches to connect all of the signal lines with a connection associated with a selected one of the transceivers to thereby connect the port to selected ones of the circuits in the DTE to accommodate a selected protocol (see paragraph 29 on page 2), wherein the port is connectable to a corresponding port of a data circuit terminating equipment (DCE) to effect communication between the DTE and DCE according to a specified protocol (see paragraph 20 on page 2).

Pascolini teaches the interface controller conditions the switches according to a selected protocol as indicated by a protocol identifier indicative of the selected protocol (see

Application/Control Number: 10/624,507

Art Unit: 2182

paragraph 28 on page 2), but Pascolini fails to teach that the interface controller receives the protocol identifier, from the DCE, independent of the at least one signal line, and fails to teach a power controller for controlling power to said switch in each of the one or more signal lines, depending on whether said port, is coupled to said DCE.

Lee teaches, in an analogous system, a DTE receiving a protocol identifier from a DCE independent of the signal lines (see "MODE[2:0]" in figures 3, lines 43-46 of column 5 and lines 16-31 of column 2, wherein MODE[2:0] identifies the protocol and is independent of Rx and Tx signal lines).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the apparatus of Pascolini with the above teachings of Lee. One of ordinary skill in the art would have been motivated to make such modification in order to rapidly reconfigure the DCE without the need of restarting the power as suggested by Lee (see lines 60-67 of column 2).

Pickert teaches, in a system wherein a peripheral device is connected to a host device, a power controller for controlling power to said switch in each of the one or more signal lines, depending on whether a port, is coupled to a peripheral (see lines 35-56 of column 1).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Pascolini and Lee with the above teachings of Pickert in order to reduce power consumption in the system.

8. Referring to claims 9 and 15, Pascolini teaches an interface system for coupling a plurality of signals between a DTE and a DCE via a plurality of communication paths, said system having:

a DTE port having at least one signal line to establish one of said plurality of communication paths, said DTE having a set of transceivers each associated with a respective circuit in said DTE to establish communication along said communication path in accordance with a selected protocol (see paragraph 8 on page 1);

a DCE port having at least one signal line to establish one of said plurality of communication paths, said DTE having an interface driver circuit to establish communication along said communication path in accordance with said selected protocol (see figure 2 and paragraphs 17 and 18 on pages 1 and 2);

a switch in each of said signal lines, each of said switches having a set of connections with each of said

connections associated with a respective one of said transceivers (see paragraph 28 on page 2); and

a control signal to condition said switches to connect all of said signal lines with a connection associated with a selected one of said transceivers (see paragraph 29 on page 2). Pascolini teaches the interface controller conditions the switches according to a selected protocol as indicated by a protocol identifier indicative of the selected protocol (see paragraph 28 on page 2), but Pascolini fails to teach that the interface controller receives the protocol identifier, from the DCE, independent of the at least one signal line and fails to teach a power controller for controlling power to said switch in each of the one or more signal lines, depending on whether said DTE port, is coupled to said DCE.

Lee teaches, in an analogous system, a DTE receiving a protocol identifier from a DCE independent of the signal lines (see "MODE[2:0]" in figures 3, lines 43-46 of column 5 and lines 16-31 of column 2, wherein MODE[2:0] identifies the protocol and is independent of Rx and Tx signal lines).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the apparatus of Pascolini with the above teachings of Lee. One of ordinary skill in the art would have been motivated to make such

modification in order to rapidly reconfigure the DCE without the need of restarting the power as suggested by Lee (see lines 60-67 of column 2).

Pickert teaches, in a system wherein a peripheral device is connected to a host device, a power controller for controlling power to said switch in each of the one or more signal lines, depending on whether a port, is coupled to a peripheral (see lines 35-56 of column 1).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Pascolini and Lee with the above teachings of Pickert in order to reduce power consumption in the system.

- 9. Referring to claim 2, Pascolini teaches the selected protocol is defined by one of a plurality of electrical interface standards (see paragraph 18 on page 2).
- 10. Referring to claim 6, Pascolini teaches the interface controller provides the control signal to the switches, the control signal being dependent of the protocol identifier (see paragraph 29 on page 2).

11. Referring to claim 7,8,13, and 14, the combination of Pascolini and Lee fails to teach the system further comprising a power controller for controlling electrical power to the switches depending on the detection of the interface standards, thereby reducing power consumption by the DTE and Pascolini-Lee combination fails to teach a power controller enabling the DCE coupled to the port after the selected protocol has been determined.

Pickert teaches, in a system wherein a peripheral device is connected to a host device, a power controller for controlling power to said switch in each of the one or more signal lines, depending on whether a port, is coupled to a peripheral (see lines 35-56 of column 1).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Pascolini and Lee with the above teachings of Pickert in order to reduce power consumption in the system.

12. Referring to claim 10, Pascolini teaches the plurality of paths include a plurality of connector pins (see paragraph 17 bridging pages 1 and 2).

- 13. Referring to claim 11, Pascolini teaches the selected protocol is defined by a one of a plurality of interface standards, the plurality of interface pins include a minimal number of predetermined connector pins, wherein said minimal number of predetermined connector pins is determined by any one of said plurality of electrical interface standards having the greatest number of signals needed for communication (see paragraphs 20-27 on page 2).
- 14. Referring to claims 16-20, the combination of Pascolini and Lee teaches determining if a DCE is connected to a DTE by detecting a protocol identifier (see rejections of claims 1,9, and 15 above). This identifier can only be detected when the DCE is connected to the DTE.

Pickert teaches disabling power to the signal lines if the peripheral is not connected (see lines 35-56 of column 1). It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Pascolini and Lee with the above teachings of Pickert for the same reasons mentioned in the rejection of claims 1,9, and 15.

Application/Control Number: 10/624,507

Art Unit: 2182

15. Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pascolini in view Lee and further in view of Pickert as applied to claims 1,9, and 15 above and further in view of Applicant's Admitted Prior Art (AAPA).

16. Referring to claims 3 and 12, the combination of Pascolini, Lee, and Pickert teaches the selected protocol is defined by a one of a plurality of interface standards, but not limited to EIA/TIA-232 and further teaches the port corresponds to a corresponding port of a DCE to effect communication between the DTE and DCE via the selected protocol (see Lee figure 1), however the Pascolini-Lee-Pickert combination fails to teach the plurality standards includes EIA/TIA-449, EIA/TIA-530, EIA/TIA-530A and IEEE 1284.

The applicant admits at paragraph 5, of the instant specification, that EIA/TIA-449, EIA/TIA-530, EIA/TIA-530A and IEEE 1284 standards are well known in the art and often used in communication between DTEs and DCEs.

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the combination of Pascolini, Lee, and Pickert with the above teachings of AAPA. One of ordinary skill would have been motivated to make such modification because these standards is

Application/Control Number: 10/624,507 Page 12

Art Unit: 2182

well known and widely used in the art as suggested by the applicant.

Response to Arguments

17. Applicant's arguments with respect to claims 1,9 and 15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eron J. Sorrell whose telephone number is 571 272-4160. The examiner can normally be reached on Monday-Friday 8:00AM - 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/624,507 Page 13

Art Unit: 2182

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

W 8/6/07

EJS 8/6/2007